REMARKS

Claims 1 and 4-21 are pending. No new matter has been added by way of the present amendments. For instance, claim 1 has been amended so as to define the adhesive as being an adhesive for adhering a pellicle film to a pellicle from for supporting the pellicle film. The pellicle film is defined as being made of a first fluorine-containing polymer. Further, the adhesive has been defined as comprising a second fluorine-containing polymer and an ultraviolet-curing fluorine-containing monomer. For clarity, the fluorine-containing polymer of the pellicle has been designated "first", while the fluorine-containing polymer component of the adhesive has been designated as "second". The amendments to claim 1 are supported by the present specification at page 3, lines 11-17 and page 4, line 23 to page 5, line 1. Claims 4 and 5 have been amended so as to define the pellicle film as being one made of a first fluorine-containing polymer. Similar to claim 1, the fluorine-containing polymer of the pellicle has been designated "first", while the fluorine-containing polymer component of the adhesive has been designated as "second". Parallel amendments have been made to dependent claims 6-11. New claim 21 is supported by the present specification at page 3, lines 11-17 and page 4, line 23 to page 5, line 1. Also, a

minor typographical error has been corrected in the specification. Accordingly, no new matter has been added.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-20 under 35 U.S.C. § 103(a) as being obvious over Yamamoto *et al.*, JP 63-248807 (hereinafter referred to as Yamamoto), in view of Yagi *et al.*, JP 03-163182 (hereinafter referred to as Yagi) and Yutaka *et al.*, JP 04-028772 (hereinafter referred to as Yutaka). Applicants respectfully traverse this rejection.

The Present Invention and its Advantages

One embodiment of the present invention relates to an adhesive for adhering a pellicle film made of a first fluorine-containing polymer to a pellicle frame for supporting the pellicle film. The adhesive comprises a second fluorine-containing polymer and an ultraviolet-curing fluorine-containing monomer as defined in claim 1.

Another embodiment of the present invention relates to a pellicle comprising a pellicle film made of a first fluorine-containing polymer and a pellicle frame for supporting the

pellicle film. The pellicle film is adhered to the pellicle frame through an adhesive layer comprising a second fluorine-containing polymer and a substance resulting from curing of an ultraviolet-curing fluorine-containing monomer as defined in claim 4.

Yet another embodiment of the present invention is directed to a method for producing a pellicle including a pellicle film made of a first fluorine-containing polymer and a pellicle frame for supporting the pellicle film. The method comprises adhering the pellicle film to the pellicle frame through an adhesive comprising a second fluorine-containing polymer and an ultraviolet-curing fluorine-containing monomer as defined in claim 5.

The adhesive, pellicle and production method according to the present invention are particularly suitable for use in a photolithography step in a process for producing an integrated circuit as well as pellicles used therein. In particular, the adhesive according to the present invention has a sufficient light resistance to ultraviolet rays of short wavelengths, requires no heating at the time of adhering and exhibits a sufficient adhesive strength. These properties are important in both the pellicle comprising an adhesive layer in which such an adhesive is used, and in a process for producing such a pellicle.

Distinguishing Characteristics between the Present Invention and the Cited Art

As discussed above and recited in the present claims, the adhesive according to the present invention is used for adhering a pellicle film to a pellicle frame for supporting the pellicle film. However, none of the references cited by the Examiner, whether taken alone or in combination, suggest or disclose such a specific use for an adhesive as claimed in the present invention.

The primary reference of Yamamoto discloses refractive-index-controlling photo-curing compounds, which are usable as adhesives, coatings and sealing materials for optical communication and various types of optical instruments. However, Yamamoto is completely silent concerning the use of such compounds for adhering a pellicle.

The secondary references are equally silent. Yagi discloses adhesives wherein fluorine-containing monomers, which are soluble in acrylic monomers, are dissolved in acrylic monomers. The adhesives are used for adhesion of various types of metals, resins and wood. However, Yagi fails to suggest or disclose that such adhesives are usable for adhering a pellicle.

Yutaka discusses curable fluorine-containing monomers for insulating materials for electrical wires. However, there is

no suggestion or disclosure in Yutaka that such monomers be used for adhering a pellicle.

Thus, none of the cited art suggests or discloses the presently claimed adhesive for adhering a pellicle. The references also fail to suggest or disclose that the pellicle be made of a fluorine-containing polymer.

In the outstanding Office Action, the Examiner has stated that:

> Yamamoto et al and Yugi et al do not expressly teach using said adhesive for the production of a pellicle. However, it is well-known in the art of pellicle films to adhere a pellicle films to pellicle frames using fluorinated adhesive composition as disclosed in the description of the Related Art section.

However, Applicants respectfully disagree with the Examiner's characterization of the "Related Art" section of the present specification. In fact, the "Description of the Related Art" section of the present specification specifically states that:

> In order to solve such problems about the adhesives for pellicle films made of fluorine-containing polymers, a pellicle comprising a pellicle film made of a fluorine-containing organic substance adhered to a pellicle frame with an adhesive made of the same fluorine-containing organic substance has also been proposed (Japanese Patent Application Laid-open No.6-67409). However, if such a conventional adhesive is used, three-hour air-drying is required after the application of a solution comprising a fluorine-containing organic substance dissolved in an solvent to a frame, and additionally, when a film and an adhesive are adhered together, it is necessary to heat them to a temperature of 100°C or higher. For this reason, the adhering process takes time and effort. Furthermore, since heat is applied, there is

> a problem that members, such as a frame, are distorted.

A careful review of the "Description of the Related Art" section of the present specification reveals a discussion that a pellicle film made of a fluorine-containing organic substance when adhered to a pellicle frame with an adhesive made of the same fluorine-containing organic substance as the pellicle film, will exhibit the above-noted problem. However, the "Description of the Related Art" section of the present specification does not disclose that it is well-known in the art of pellicle films to adhere a pellicle film a pellicle film to a pellicle frame using a fluorinated adhesive composition.

The Federal Circuit has explained that "the consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable expectation of success. Rockwell Int'l Corp. v. United States, 47 USPQ2d 1027, 1033 (Fed. Cir. 1998). Thus, the prior art must first suggest or provide motivation to one of ordinary skill in the art that the subject matter claimed should be pursued. Then, there must be a reasonable expectation of success.

In the present instance, as explained above, the prior art, as a whole, fails to suggest presently claimed adhesives for adhering a pellicle. Not surprisingly, absent a disclosure of a pellicle, these references further fail to suggest that the pellicle be made of a fluorine-containing polymer. Accordingly, there exists no motivation in the prior art, much less a reasonable expectation of success, that the presently claimed subject matter should be pursued. Accordingly, applicants respectfully submit that the Examiner has failed to present a valid *prima facie* case of obviousness. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

In view of the above, Applicants respectfully submit that the present claims are allowable over the cited art. Accordingly, the Examiner is respectfully requested to withdraw all outstanding rejections and allow the currently pending claims.

If the Examiner has any questions or comments, please contact the undersigned at the offices of Birch, Stewart, Kolasch & Birch, LLP at the number listed below.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three month extension of time for filing a reply in connection with the present application, and the required fee of $1020.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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